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The Coming Change in Policy: Basic or Cosmetic?

AS this issue of *The Survey* goes to press, it is apparent that change of some kind in national economic policy is imminent. The President and his advisers—shocked into a re-examination of priorities by the alarming deterioration in price statistics and by the turmoil generated in financial markets—are seeking to formulate a credible package of new anti-inflation initiatives. And on Capitol Hill, a sense of heightened urgency about inflation and the need for action is similarly evident.

What will come of all this is extremely difficult to judge—and may remain so after the President announces new plans. That is because most of the actions the President can take himself (e.g., more aggressive implementation of wage-price guidelines, institution of selective credit controls) would not reach to the economy's underlying afflictions. Dealing with these will require that the executive and legislative branches take determined, cooperative action to curb federal expenditures. In part because of election-year complexities, there is no way of assessing confidently the likelihood of cooperation. Thus, while change in policy seems imminent, it is not clear whether that change will be basic or cosmetic.

If action does not go to basics, it won't be for lack of perception within the Administration or Congress as to what needs to be done. Those who counsel the President are sensitive to the critical need to deal—as a basic anti-inflation step—with the formidable impediments that stand in the way of improved national productivity. This year's annual report of the Council of Economic Advisers is rich in insight as to the vital need to enlarge the pool of national

savings, stimulate capital formation, and recreate in this country a climate of appropriate reward for effort and innovation. Precisely the same kind of understanding of the deep-rooted nature of the economy's inflationary bias is widely evident among key Congressional leaders.

Yet, despite the policy direction indicated by this year's CEA report, the President's January messages proposed no relevant program of action. No tax incentives for saving. No tax incentives for investment. No relief for individuals or businesses from the considerable rise in effective tax rates that has come as a by-product of inflation.

One reason no basic policy change was proposed is that the kinds of action needed would entail for a time a substantial revenue loss to the Treasury. And it is understandable that officials are reluctant to give up even a small amount of revenue in view of the projection in the current fiscal year (fiscal 1980) of a $40-billion deficit ($57 billion if off-budget agencies are included).

The fact that an immobilizing deficit exists at such an advanced stage of cyclical expansion is stark testimony to the lack of expenditure control that has prevailed in this country in recent years. The size of the current-year deficit is particularly striking considering that it comes at a time when inflation is working, through the phenomenon of "bracket creep," to produce a revenue bonanza for the Treasury.

The fiscal 1980 budget—characterized by the President as "lean and austere" when first proposed a year ago—is now projected to show an expenditure rise of $70 billion, or 14%, over outlays in fiscal 1979. Significantly, the increase now projected in current-year outlays is six percentage points higher than the increase projected a year ago. A good part of that upward revision reflects unexpectedly high inflation, of course. That certainly is not easy to cope with in a budget heavily laden with "entitlement" programs whose costs in key instances (such as Social Security) escalate by law as prices rise. The point, however, is that no determined effort to cope has yet been made. The tough and unpleasant task of scaling back individual parts of the budget to achieve a responsible total has been sidestepped. Essentially, the Administration and Congress have acquiesced in the powerful inflation that has emerged.

It has been the failure of fiscal policy to play any significant anti-inflationary role that has necessitated such heavy reliance in recent months on the weaponry of the Federal Reserve. Monetary restraint, to be sure, is an essential

Interest Rates Over the Last Few Months

	Early October	*Autumn high*	*Early January*	*Early March*
Federal funds	11.91	15.61	13.94	17.00
3-month Treasury bills	10.26	12.60	11.92	14.95
Prime rate	13.50	15.75	15.25	17.25
New AA utility bonds	10.50	11.95	12.00	13.80
20-year U.S. Treasury issues	9.34	10.56	10.38	12.40
Municipal securities	6.64	7.38	7.30	8.50
Conventional mortgages	11.34	12.62	12.75	14.00

NOTE: Rates for Federal funds, 3-month Treasury bills, and 20-year U.S. Treasury issues are weekly averages. Prime rate is Morgan Guaranty's. Rates for utility bonds come from Morgan Guaranty's AA New Utility Bond Index. Rates for municipal securities come from the 20-bond index of the *Bond Buyer*. Mortgage rates are from the Federal Home Loan Bank Board's monthly data on new commitments. Early March figures, except for the prime rate, are estimates.

prerequisite to better price performance. But to leave the fight to it alone is to doom the fight to failure. Had fiscal policy been supportive of monetary restraint, it is unlikely that a quantum leap in interest rates—amounting since early autumn to more than three percentage points in some segments of the debt market (table on page 2)—would have occurred. That leap heightens cyclical uncertainties, especially in housing and housing finance. And the recent turmoil in financial markets threatens the whole capital-formation process. Inordinate reliance on monetary policy, in short, has increased significantly both the cyclical and longer-term risks for the economy.

For this situation to change materially, the problem of the surge in federal spending will have to be addressed. There can be no certainty of reasonable order in credit markets until confidence develops that the Treasury will, in time, become a less necessitous borrower. And there is a critical need to provide leeway for tax incentives that will encourage saving, investment, and effort.

The fact that Washington is now showing greatly increased concern about the budget is heartening. But skepticism that budgetary discipline actually will result is bound to remain widespread, given the lack of consensus that still exists as to what programs affecting which constituencies are to be curbed. Thus, forebodings of a resort to controls hang over the economy and inevitably distort decisions by individuals and businesses. Official assurances that controls won't become mainstays of policy simply will not be credible unless accompanied by forceful expenditure curtailment and a meaningful pledge that tax reduction will take clear precedence over program enlargement in the future.

Inflation Ratchets Up

RECENT price statistics confirm that inflation has ratcheted up once again. The 21% annual rate of increase in the producer price index in January and the 18% rate of increase in the consumer price index (CPI) far outpaced the 13% rise these indexes registered during the course of last year.

The acceleration in the producer price index was perhaps the more discouraging of the two developments. It was sharp in all categories of the index—except for food prices, which actually declined. Particularly striking were annual-rate increases of 40% for consumer goods other than food and of 20% for capital goods. The rate of price increase accelerated in all nonfood industries—with energy, chemical, and metals (gold, silver, and copper) prices rising particularly rapidly (table on page 4).

The acceleration in consumer prices came mostly from the same two areas that have been boosting the rate of increase of the index for the past year—oil and mortgage interest rates. Gasoline prices, which had increased about 2% per month on average in the last three months of 1979, jumped 7.4% in January—as retail markets began to reflect the most recent OPEC price increase. Mortgage interest rates, which have an especially large weight in the CPI, also accelerated in January—rising 3% as compared with an average of 1.7% in the previous three

Producer Prices Accelerate

(Percent change at annual rate)

	79-Q1	79-Q2	79-Q3	79-Q4	Jan. '80
Agriculture	24.1	8.3	0.3	3.5	−12.5
Textiles	3.6	7.1	7.5	4.8	15.6
Leather	45.9	59.4	−12.2	−9.9	35.6
Fuels and power	16.7	45.5	73.1	48.2	58.4
Chemicals	11.0	20.8	21.1	14.1	44.4
Rubber and plastic	9.8	17.6	16.5	12.2	15.6
Lumber	10.5	10.8	3.1	−7.2	0.8
Pulp and paper	11.3	13.1	10.1	15.3	38.8
Metals	21.2	16.9	8.5	14.7	60.5
Machinery	8.5	9.4	9.7	9.6	25.1
Furniture	10.0	4.6	5.1	9.5	40.6
Nonmetallic minerals	18.2	9.4	10.2	9.8	49.3
Transportation equipment	7.8	8.6	−0.4	16.8	21.6
Miscellaneous	18.2	8.1	13.1	23.4	115.4

months. But the rate of increase in retail prices for goods and services other than energy and interest rates (while running at the disturbingly high annual rate of 9%) did not show a decisive tendency to accelerate.

The surge in consumer prices in January, however, is not likely to be simply a one-month aberration. In particular, energy prices and mortgage rates are sure to continue to increase rapidly in coming months. Gasoline prices were up another 7% in February, according to industry reports. And, even if OPEC prices move no higher, the ongoing decontrol of domestic crude-oil prices will put upward pressure on oil-product prices during the remainder of the year. Mortgage interest rates will also continue to exert a strong influence on the CPI, at least through midyear. If the 14%-plus rates that have recently been posted by many mortgage lenders become general, the increase in mortgage rates in the CPI for the next several months will continue at a rate at least as rapid as that shown in January (story on page 5).

There is also the distinct possibility that price increases generally will begin to quicken at the retail level. The broadly based jump in the producer price index in January points in that direction, and the strengthening of the economy in recent months makes it all the more likely that price increases at the producer level can be passed on.

The one constructive element in the current environment has been the relative stability of increases in wages. All three of the most widely followed measures indicate that wage gains remained in the 8%-to-9% range during 1979 (table below). And, on the whole, recent data fail to signal the start of a pickup in the rate of wage increase.

Nevertheless, several factors will tend to put upward pressure on manpower costs in the coming year. Current rapid rates of increase in consumer prices will feed into wages through explicit escalator clauses now governing 60% of major union contracts and through informal escalation arrangements in the nonunion sector. Rising Social Security taxes this year and

A Stable Pattern in Wages

(Percent change December-to-December)

	1977	1978	1979
Average hourly earnings*	7.4	8.5	8.3
Employment cost index	7.0	7.7	8.7
Compensation per manhour†	7.5	9.1	9.0

*Adjusted for overtime in manufacturing and interindustry shifts.
†Fourth quarter to fourth quarter change in the private nonfarm economy.

next (made necessary in part by indexation of Social Security benefits) will also add heavily to labor costs. Moreover, by boosting the upper limit of the wage increase guideline to 9½%, the Administration implicitly has given its support to increases in wage rates about one percentage point higher than the average increase during the past year. If the economy continues to avoid a slippage into recession, such acceleration will be especially likely to occur.

It is this prospect of a faster tempo of increase in labor costs, and in prices generally, that has led to the sharp accentuation of inflation expectations in recent months. If wage rate increases do accelerate in 1980, the underlying inflation rate of the U.S. economy will once again ratchet higher—continuing a process that began well over a decade ago. Such a development would make it very difficult to foresee how the rate of increase in consumer prices will come back into single-digit territory—even if toward the end of the year the pace of advance in energy prices and home-ownership costs abates.

Mortgage Rates and the CPI

SHARP increases in interest rates during recent months have focused attention on the impact that changes in interest rates have on inflation as measured by the consumer price index (CPI). The fact that interest rates are directly incorporated in the CPI but not in other major price series, such as the producer price index or the GNP deflator, explains a large portion of the recent difference in the growth rates of the CPI and other price indexes. It also has led to the perverse outcome that a tightening in monetary policy aimed at controlling inflation has resulted, in the short run at least, in an acceleration in measured consumer prices.

Interest rates affect the CPI most importantly through a component that measures the cost of purchasing a house. The CPI treats a house like any other consumer good—although a house, in fact, has many of the characteristics of an investment good.

The cost of buying a house is measured in the CPI by two separate components—one that measures the cost of the house; another that measures the cost of the mortgage (table on this page). The first is measured by an index of the prevailing prices of houses—both new and existing. The cost of finance depends on two factors—the size of the mortgage and the interest rate. The size of the mortgage is assumed to change proportionally with the purchase price of houses, and the interest rate is measured by an index of the rates prevailing for newly closed mortgage loans. The product of these two series

CPI House Purchase and Finance

(Percent change at annual rate)

	79-Q1	*79-Q2*	*79-Q3*	*79-Q4*	*Jan.*
Total	17.9	21.5	21.7	29.6	28.7
House price*	11.1	14.8	17.4	18.8	11.6
Mortgage cost	27.9	31.1	27.4	44.7	52.4
House price*	11.1	14.8	17.4	18.8	11.6
Mortgage rate*	12.5	11.6	15.2	19.9	43.8

*Not seasonally adjusted.

Two Measures of Inflation

(Percent change at annual rate)

	79-Q1	*79-Q2*	*79-Q3*	*79-Q4*	*Jan.*
Consumer Price Index					
Total	11.2	12.8	13.4	13.6	18.0
House purchase and finance	17.9	21.5	21.7	29.6	28.7
Energy	19.8	47.5	56.4	25.7	72.0
All other	8.7	7.2	6.6	8.5	9.3
Personal Consumption Deflator					
Total	10.8	9.2	9.8	9.8	
Housing	6.3	6.4	9.8	11.7	
Energy	18.9	51.1	60.3	22.8	
All other	10.5	7.0	5.4	8.4	

is the mortgage-cost component of the index.

Significantly, changing mortgage costs enter the CPI with a considerable time lag—for several reasons. First, the CPI for any particular month reflects the prevailing rates on mortgage loans closed during the first week of the previous month. In addition, in most cases, a mortgage rate is set at the time a mortgage commitment is made and there is typically a lag between that time and the time a loan is closed. The consequence of these lags is that movements in the CPI mortgage-rate component can run behind changes in mortgage market conditions by as much as three or four months. This explains why the rate of increase of the mortgage-rate component accelerated sharply in January: it reflected the jump in mortgage rates that followed the tightening in Federal Reserve policy in early October. Similarly, because of these lags, the impact of the suspension by Congress of state usury ceilings effective January 1 will not be reflected in the CPI until February and March.

Changes in house prices enter the CPI with an even longer lag, partly because there are delays in processing the raw data and partly because the highly erratic monthly data are averaged over a three-month period. A six-month lag can easily occur before changes in house prices affect the CPI. Signs of deceleration in the rate of increase of house prices evident in the January CPI actually reflected a weakening in housing markets that began in late summer of last year. But any new weakening in house prices that may result from the most recent boost in mortgage rates will not show up in the CPI until summer.

The large impact that rising mortgage rates have had on the CPI during the past year is highlighted by a comparison of the CPI and the personal consumption deflator of the national income accounts (table above). The personal consumption deflator is similar to the CPI in that it measures prices paid by consumers. But, significantly, its basic measure of housing cost for both rental housing and owner-occupied dwellings is an index of rents. Thus, it is not affected directly by changes in mortgage rates.

As the table above indicates, prices of goods and services other than housing have increased at about the same rate whether measured by the CPI or the personal consumption deflator. Housing prices, however, increased more than 20% during 1979 as measured by the CPI, but they rose less than 10% as measured by the personal consumption deflator. In addition, the CPI measure accelerated sharply during the course of the year, as mortgage rates surged, while the rent-based deflator measure showed a relatively stable performance during the year. The different treatment of housing costs in the two indexes is the primary reason for their very different rates of increase during the past year.

The Fed's New M's: An Appraisal

THE Federal Reserve's presentation last month of a set of new definitions of "money" represents the culmination of years of debate both within and outside the Fed over whether and how to replace the old measures of money (commonly referred to as M_1, M_2, M_3, . . .). The decision to adopt new measures is potentially of great importance for the conduct of monetary policy, since in recent years the Fed has increasingly cast its policy in terms of the achievement of targeted growth rates for the various monetary aggregates. And last October 6, the Fed instituted a major change in its day-to-day operations which was specifically designed to improve its ability to keep money growth on target. A definitive judgment as to whether the new definitions provide better guides to policy will have to await the test of time. Tentatively, however, there are grounds for saying that they are better, but not by much. Fortunately, the Fed seems to be aware of their limitations and has made clear that the process of redefining money is likely to be a continuing one.

Indeed, the process of conceptualizing what money is really began when someone first realized that commerce could be conducted more efficiently by introducing a common medium of exchange to replace the barter system. In the millennia since then, the underlying concept of money has remained the same: a generally accepted medium of exchange to facilitate transactions. However, the list of specific assets identified as money has changed as innovations in the payments system have occurred—e.g., the minting of coins, the printing of paper currency, and the development of checks. Moreover, a variety of close substitutes for money have evolved, such as savings accounts and certificates of deposit. While these "near-monies" generally cannot be used directly as means of payment (although drafts written against some savings accounts have acquired this ability), they can be quickly and easily converted into money. Therefore, they cannot be ignored by policymakers concerned with the size of the nation's money supply.

Policymakers have had such a concern at least since the 18th century, when David Hume argued that excessive growth in the money supply leads to inflation and too little growth to deflation. Contemporary economists would express Hume's argument in terms of the demand for and the supply of money. The demand for money—the amount of money which individuals and businesses want to hold—is assumed to be closely determined by both the amount of purchases the public intends to make and the level of interest rates, which represents the cost of holding cash or checking deposits. The supply of money, which today is determined by a more complex process than in Hume's time, is still ultimately under the control of the monetary authorities. If those authorities supply more money to the public than is demanded, it is reasoned, people will attempt to get rid of the excess by spending or investing more than they had planned. If the economy is at or close to full employment, the additional spending can only lead to inflation. For an economy to avoid destabilizing swings between inflation and deflation, according to this argument, some appropriate rate of money growth must be maintained.

During the Great Depression and for a considerable part of the postwar period, to be sure, the interest of policymakers in monetary policy waned. Fiscal policy—reflecting the triumph of

Keynesianism—came to be viewed as the principal means for achieving the desired economic goals of full employment and reasonably stable prices. Monetary policy was regarded as playing a subordinate role in attempts to attain these goals. Moreover, the indicator generally used to gauge monetary policy was the level of interest rates, not the rate of money growth.

Disenchantment with fiscal policy became widespread, however, with the failure of efforts to "fine tune" the economy in the 1960s. In their subsequent quest for a means of dealing with accelerating inflation, economists began to pay more attention to the modern interpreters of Hume's doctrines. In the decade since then, the content of scholarly journals has tilted increasingly toward articles debating such issues as whether money affects only the inflation rate in the long run or the real output of goods and services as well, and how long it takes before money's impact is felt. While differences abound, virtually unanimous agreement has evolved among economists that money not only "matters," but matters a great deal.

The Fed reflected this shift of opinion by giving greater emphasis in the formulation of policy to its basic measure of the means of payment (M_1, consisting of currency and demand deposits) and to a variety of measures of near-money such as M_2 and M_3. (See table above for the specific items included in these measures.) In fact, the Fed is now required under the Full Employment and Balanced Growth Act of 1978—the so-called Humphrey-Hawkins Act—to establish annual growth targets for the various monetary aggregates which it believes will be consistent with the eventual achievement of full employment and a low rate of inflation.

But at the same time that the money supply was gaining prominence as the focal point of Fed policy, the pace of innovation in the financial system was accelerating. The introduction of new types of transactions accounts not included in the old M_1, which effectively permitted the payment of interest on checking balances, along with the rapid growth of several near-monies not included in the broader M's, raised doubts as to whether the old aggregates were accurately reflecting the effective amount of money in the economy. Stated differently, there were questions whether the historic relationships among the Fed's measures of money, economic activity and interest rates had broken down.

Signs of such a breakdown appeared dramatically in the early stages of the recovery

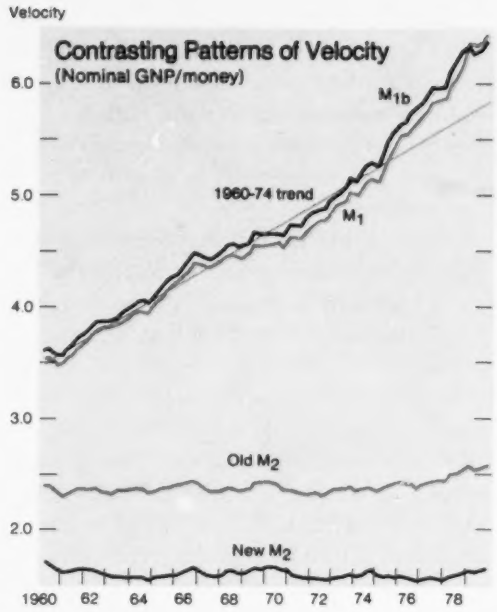
Old Definitions of Money

(Billions of dollars, not seasonally adjusted)

	December 1979
M_1:	
Currency in the hands of the nonbank public	108.1
Demand deposits at commercial banks	284.6
	392.7
M_2:	
M_1	392.7
Savings deposits at commercial banks	205.4
Time deposits at commercial banks other than large negotiable certificates of deposit (CDs)	360.2
	958.3
M_3:	
M_2	958.3
Deposits at thrift institutions	667.6
	1,625.9
M_4:	
M_2	958.3
Large negotiable CDs	97.1
	1,055.4
M_5:	
M_3	1,625.9
Large negotiable CDs	97.1
	1,723.0

from the 1974-75 recession. M_1 growth of 4.6% in 1975 and of 5.8% in 1976 was accompanied by considerably greater growth in nominal income than would have been anticipated on the basis of the historical relationship between M_1 and nominal GNP. Before it became apparent that income was in fact expanding strongly, fear developed that money was growing too slowly to sustain the recovery. That fear gradually waned, however, as analysts came to appreciate that a fairly radical transformation was occurring in the efficiency with which people were using money. Each dollar of money balances was in effect supporting a markedly larger volume of transactions than formerly. In other words, what economists call the velocity of money—calculated in the case of M_1 by dividing nominal GNP by the total amount of currency and demand deposits—rose significantly faster in 1975 and 1976 than its trend rate of increase over many previous years (chart on this page).

The growth of the more broadly defined measure, M_2, did not show a simultaneous slowing relative to GNP. In time, however—roughly from early 1978—M_2 also began to grow considerably less rapidly than the historic linkage between nominal GNP and M_2 would have suggested. Efficiency in usage of M_2, that is, also has increased.



Why the spurt in velocity?

There are at least two possible explanations why individuals and businesses came to need less money (as officially defined) and near-money relative to income and transactions than before. First, it is possible that with the passage of time and with change in the nation's payments system the Fed's measures of money gradually became poorer proxies for what in fact serves as money and near-money. With respect to the narrow measure of money used by the Fed for decades (M_1), this deterioration might have occurred because the measure excluded new types of transactions accounts at banks and thrift institutions. Similarly, the broader measures used by the Fed failed to incorporate all the new close substitutes for money that evolved over time. According to this explanation, the ability of people to get by with less money relative to income than formerly at least partly reflected a failure by the Federal Reserve to keep its money definitions aligned with the changing collection of things people were actually using as money.

An alternative explanation (at least for the dramatically lessened growth of M_1) is that the basic relationship between money and economic activity did change radically in the 1975-76 period. According to this view, a number of regulatory and market developments—most im-

portantly, the extremely high interest rates of 1973-74—sensitized both individuals and firms to the rewards of careful cash management. The resultant minimization of cash balances (and thus the slowing of M_1 growth) caused M_1 velocity to increase sharply relative to its trend rate of growth.

Research by the Fed's staff gradually produced a conviction within the System that the Fed's money measures had slowed in growth relative to economic activity both because official definitions were too narrow and because there had indeed occurred a fairly radical shift in the linkage between money and income. The Fed thus reached the conclusion that new definitions of money were needed. But it approached the task of redefinition with full awareness that—in light of the recent pattern of change in the relationship between money and income—the new measures would not be reliable guides to policy for all times.

The new framework

The practical problem confronting the Fed was what groupings to form from the long list of assets having at least some degree of moneyness. The goal was to create a number of new aggregates, beginning with a measure of those assets that correspond to the strictest definition of medium of exchange and extending to ever broader measures of money and near-money. Each successively broader measure was to incorporate assets less liquid than those included in the group preceding it. Assets which serve similar functions—and which therefore are presumably close substitutes in the eyes of the public—were to be grouped together irrespective of the institutions at which they were held. By contrast, the Fed's old aggregates had been constructed along institutional lines, a reasonably satisfactory approach before whirlwind regulatory and legislative changes blurred distinctions between various kinds of financial institutions. The resulting set of new definitions of money appears in the table on page 11.

In attempting to assess the new definitions, it is natural to begin by asking how close they come to meeting the goals described above. Was the principle of grouping together assets which serve similar functions adhered to? Do the dividing lines between the measures—which must be somewhat arbitrary—seem reasonable in terms of the principle of ordering assets by decreasing degrees of moneyness? Have any major assets which can legitimately be called near-monies been left out of the new measures altogether? In order to answer these questions, it is necessary to look at the new aggregates one by one.

The narrowest of the new measures, M_{1A}, begins with currency in the hands of the public and demand deposits at commercial banks (i.e., the items which comprised the old M_1). As in the past, the Fed has adjusted the total to remove that portion owned by the U.S. government, the Federal Reserve, and domestic commercial banks (vault cash and interbank deposits). The logic behind that adjustment is that the excluded portion of currency and demand deposits is not likely to be as closely related to current expenditures as are the balances held by the nonbank public. In the new definition, one additional adjustment made to this subtotal is to net out the demand deposits of foreign commercial banks and official institutions. This change stems from a recommendation made in 1976 by the Advisory Committee on Monetary Statistics (the "Bach Committee"). The rationale is the same as that for removing domestic interbank and federal government deposits.

While the Fed will publish weekly data on

M_{1a}, conceptually it is the broader M_{1b} which comes closer to the traditional notion of the medium of exchange. This aggregate, which will also be available weekly, begins with M_{1a} and then adds various new kinds of interest-earning deposits against which checks can be written. These include the negotiable-order-of-withdrawal (NOW) accounts at banks and thrift institutions, share-draft balances at credit unions, and those bank accounts which provide for the automatic transfer of funds from savings to checking. Altogether, these innovative deposits total more than $16 billion at present. However, that figure probably overstates the addition they represent to balances held for the purpose of current transactions, since some portion of the total presumably reflects hard-core savings deposits.

Since M_{1b} is really the new measure of money in the narrow sense, the decision to publish figures for the subtotal of M_{1a} at first seems superfluous. The reason for its inclusion in the new aggregates is a pragmatic one. There are a number of pending regulatory and legislative issues which might distort both measures in offsetting ways. For example, if NOW accounts, which currently are limited to New England and New York State, are authorized nationwide, M_{1b} might temporarily overstate the rate of growth in transactions balances during the transition period, as some savings balances are shifted to NOW accounts. By contrast, M_{1a} might grow unusually slowly in a transition to nationwide NOW accounts, since traditional demand deposits would appear unattractive relative to interest-bearing checking balances. The availability of both series could help in sorting out transitional disturbances.

Once the Fed had defined M_{1b} as its new measure of money in the narrow sense of transactions balances, it then had to decide what

New Definitions of Money

(Billions of dollars, not seasonally adjusted)

	December 1979
M_{1a}:	
Currency in the hands of the nonbank public	108.1
Demand deposits at commercial banks less those due foreign banks and official institutions	273.0
	381.1
M_{1b}:	
M_{1a}	381.1
Other checkable deposits	16.2
	397.3
M_2:	
M_{1b}	397.3
Savings deposits at all depositary institutions	415.0
Small time deposits at all depositary institutions	648.7
Overnight RPs issued by commercial banks	20.6
Money market mutual fund shares	43.6
Overnight Eurodollar deposits of U.S. nonbank residents at Caribbean branches of U.S. banks	3.5
Consolidation component (to avoid double counting of components)	−2.7
	1,526.0
M_3:	
M_2	1,526.0
Large time deposits at all depositary institutions	222.6
Term RPs issued by commercial banks	22.2
Term RPs issued by savings and loan associations	8.0
	1,778.8
L:	
M_3	1,778.8
Other Eurodollar deposits of nonbank U.S. residents	30.9
Bankers acceptances	26.6
Commercial paper	97.2
Savings bonds	80.0
Liquid Treasury obligations (remaining maturities of 18 months and less)	127.2
	2,140.7

assets to add to form its next broader monetary measure. Just as there was no question that currency belonged in the narrow definition of money, so it was clear that commercial bank savings accounts should be in the next category of assets after the means-of-payment grouping, the new M_2. To these bank savings accounts were added savings accounts at thrift institutions, in accordance with the principle that deposits which serve similar functions are close substitutes for one another and therefore should be grouped together in one aggregate even if they are held at different types of institutions.

However, the Fed's decision to include in the new M_2 all "small" (i.e., under $100,000) time deposits at all institutions seems to violate the principle that each successively broader aggregate should incorporate assets sharing roughly the same degree of liquidity. While about 40% of small time deposits are in the form of so-called money-market certificates that mature in at most six months, the remainder include deposits with maturities of up to several years.

The decision to include such relatively illiquid assets with passbook savings apparently represents a concession to those monetary analysts who believe that the quest should be for an aggregate with features of stability and predictability, especially in relation to GNP, rather than for conceptual purity. Greater stability is achieved by inclusion of all small time deposits because in circumstances in which interest rates are rising and funds are being withdrawn from savings accounts, many of these funds wind up in small time deposits, thus changing the composition but not the total of M_2. Even so, the fact that the new M_2 does not consist solely of like ingredients (in terms of maturity features)—and thus represents a departure from the basic organizing principles set forth by the Fed for its new definitions—may generate some skepticism among policymakers about its value, at least until its worth has been shown.

Novel ingredients

Moreover, policymakers are unlikely to feel comfortable relying on the new M_2 for a while, since it differs fundamentally in composition from any previous measures of money. These had always been limited to currency plus the deposit liabilities of domestic banks and thrift institutions. But the new M_2, in addition to the items already enumerated, includes overnight repurchase agreements issued by commercial banks, money market mutual fund shares, and overnight Eurodollar deposits at the Caribbean branches of U.S. banks. These are novel inclusions in the monetary aggregates. However, many of the discussions leading up to the new definitions centered not on whether they were sufficiently near-money to belong in M_2, but whether they might even have been included in M_{1b}.

Those who took the latter view in the case of overnight repurchase agreements (RPs) were arguing, at least implicitly, that RPs—in which a bank sells government securities to an investor and agrees to buy them back the next day at a higher price—have the effect of reducing the reported total of demand deposits without reducing the amount of demand balances available to depositors during most of the business day. That interpretation, perhaps influenced by the customary use of the term "overnight" in connection with RPs, would appear to assume that the investor makes the decision to "do" the RP at the end of the day. If such were the case, the RP might be considered in a sense the after-hours *alter ego* of a daytime demand deposit, and therefore its equivalent for purposes

of money supply tabulation. In practice, however, as the Fed discovered in a staff study, RPs typically are arranged during the morning —mainly because that is when banks are lining up their daily money position. The invested funds thus are committed through the greater part of the day and effectively removed from availability to the investor.

Money market mutual funds also provoked discussion as to appropriate classification. These funds, which allow savers to earn market interest rates by pooling their funds for investment in a variety of short-term instruments, have grown to over $50 billion from about $4 billion as recently as the start of 1978. Their appearance as part of the aggregates is noteworthy since they are not the liabilities of any depositary institution, in contrast to all of the other components of the M's except currency. Although most of these funds permit checks to be written on them in amounts above some minimum (typically $500), a recent study by the Federal Reserve Bank of Richmond indicates that individuals view them primarily as an alternative to savings accounts at banks and thrift institutions, rather than as interest-bearing checking accounts. Relatively little check writing against them actually occurs. Hence, the Fed appears to have chosen properly in including them in M_2 but not in M_{1b}, although it should monitor closely the check-writing activity associated with them and be prepared to revise its decision if they evolve into essentially interest-earning demand balances.

The placement of the remaining item in M_2 —so-called overnight Eurodollar (i.e., dollar-denominated) deposits held by U.S. nonbank residents at Caribbean branches of U.S. banks— was apparently decided without great difficulty. In quantitative terms, overnight Euros are much less important than either RPs or money market mutual funds, since they amount to only a few billion dollars.

If the exact placement of the dividing line between M_{1b} and M_2 was somewhat arbitrary, the judgment on where to draw the line between M_2 and still broader measures was all the more so. For example, the Fed could have included large ($100,000 and over) time deposits in M_2, or at least some portion of them, according to such criteria as whether they are negotiable in the secondary market or whether they mature within some given period. Presumably, the decision to exclude the negotiable portion from the new M_2 reflects the same kind of reasoning which led to their exclusion from the old M_2 —that they more closely resemble money market instruments than they do deposits, and that they would detract from the stability of the M_2-GNP relation. The nonnegotiable portion is presumably less liquid than the rest of the components in M_2 (except, of course, for the small time deposits whose inclusion was questioned above).

Still broader measures

Having decided to draw the line for M_2 at large time deposits, the Fed could have concluded that no useful purpose would be served by defining further groupings of assets apart from one large measure of money and all near-monies. Instead, it first established a new M_3, consisting of M_2, large time deposits, and term (i.e., longer than overnight) RPs. What role, if any, this somewhat strange amalgam will play in policy deliberations is far from clear. Having created M_3, however, the Fed did then proceed to a "catch-all" which it designated "L," for liquidity. Basically, L is meant to encompass everything that is either money or very readily convertible to money.

Despite the Fed's efforts to identify and in-

clude in its new M's and in L all assets possessing qualities of moneyness, it is a certainty that, under conditions of rapid financial innovation, new assets will evolve that will in time have to be fitted into its mosaic. The new M's and L are thus not frozen as to content. Indeed, the Fed already has plans to add nonbank travelers checks—a not insignificant kind of transactions money—at the M_1 level as soon as data availability permits. (Travelers checks which are the liabilities of banks were part of the old M_1 and are included in M_{1a}.) One possibility for future inclusion in either the new M_{1a} or in the new M_2 is an innovative type of brokerage account which earns interest and on which checks of any dollar amount may be written. This kind of account (similar to money market mutual funds) is not yet quantitatively important, since substantial balance or collateral requirements are typical. But the Fed clearly will need to monitor the growth of such accounts to see how they develop and whether in fact the check-writing privilege is actively used.

It is a certainty, moreover, that discussion will continue both within the Federal Reserve System and among others with respect to the conceptual issue of what the content of the M's and L should be. The Fed, for instance, decided against inclusion, in any of its groupings, of established credit facilities available for use by either individuals or businesses—such things as credit-card lines, overdraft lines, and confirmed commitments by banks to lend. On balance, that exclusion makes sense because, while such facilities can be used to purchase goods and services, e.g., a restaurant meal, they are not a final means of payment, but rather create liabilities which in turn must ultimately be discharged with payment in money. Yet, there is good reason to think that the possession of established credit facilities may condition both individuals and businesses to spend in a way not dissimilar to the conditioning that comes from having money balances. Thus, whether or not the Fed ever lodges credit-facility numbers in its formal classification, a strong case does exist for development and refinement of credit-facility data.

When the dust settles

Given the tremendous effort which went into this redefinition of the aggregates, what can be said in general about the gains which have been achieved? The basic conclusion is that the effort has been worthwhile, since it has served to focus attention on the importance of money for economic policy as well as on the danger of mechanical reliance on any one definition of money in an era of rapid financial change. While it is possible to question some of the specific judgments which were made, particularly the inclusion of all small time deposits in M_2, the new framework has sound conceptual underpinnings. Moreover, the functional approach of the new definitions should make it easier to incorporate within this framework future financial innovations as they occur. And since the Fed has decided to publish on a regular basis data on the components of the aggregates, it will be possible for individuals to "roll their own" measures of money if they find alternative groupings more useful for their own purposes.

Inevitably, the new measures will suffer many of the same shortcomings as guides to policy as did the old ones, because it appears that new elements of instability have evidently developed in the relationship between money and economic activity. In particular, the velocity of

M_{1B} spurted sharply during the early part of the recovery from the last recession, just as did the velocity of the old M_1. Therefore, M_{1B} would also have led policymakers to underestimate how stimulative monetary policy was in 1975 and 1976.

Direct comparisons between the old and new M_2 are somewhat more questionable, since, as was noted, they are fundamentally very different constructs, despite their shared symbol. Still, it is a fact that the new M_2, after growing at an average rate of 12.5% from 1975 through 1977, decelerated sharply to an average rate of 8.6% in 1978 and 1979, slowing even more sharply since late 1977 than did the old M_2. That such a rapid drop in the growth rate of a broad measure of money and near-money has not yet been reflected in a more pronounced weakness in economic activity obviously raises questions as to how useful the new M_2 will be in helping forecasters to anticipate cyclical turning points.

The chances are, however, that policymakers themselves will be mindful that the new definitions do not provide any easy answers to the problems faced by the nation's economy. Clearly, the main responsibility for monetary policy today is to play a useful role in helping to bring inflation under control. For that purpose, the essential objective for the Fed is to effect a permanent lowering of the growth rates of money, however defined, since all of the aggregates, old and new, have been expanding more rapidly in the 1970s than is consistent with a relatively stable level of over-all prices. In light of the changing relationship between various measures of money and economic activity, the Fed cannot be sure that achievement of any given target for money growth will be accompanied by the kind of economic performance which it seeks. The real challenge confronting the Fed will be to evaluate continually the appropriateness of the growth targets it establishes for the new measures of money, and, indeed, the appropriateness of those measures themselves.

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The Coming Change in Policy: Basic or Cosmetic?

AS this issue of *The Survey* goes to press, it is apparent that change of some kind in national economic policy is imminent. The President and his advisers—shocked into a re-examination of priorities by the alarming deterioration in price statistics and by the turmoil generated in financial markets—are seeking to formulate a credible package of new anti-inflation initiatives. And on Capitol Hill, a sense of heightened urgency about inflation and the need for action is similarly evident.

What will come of all this is extremely difficult to judge—and may remain so after the President announces new plans. That is because most of the actions the President can take himself (e.g., more aggressive implementation of wage-price guidelines, institution of selective credit controls) would not reach to the economy's underlying afflictions. Dealing with these will require that the executive and legislative branches take determined, cooperative action to curb federal expenditures. In part because of election-year complexities, there is no way of assessing confidently the likelihood of cooperation. Thus, while change in policy seems imminent, it is not clear whether that change will be basic or cosmetic.

If action does not go to basics, it won't be for lack of perception within the Administration or Congress as to what needs to be done. Those who counsel the President are sensitive to the critical need to deal—as a basic anti-inflation step—with the formidable impediments that stand in the way of improved national productivity. This year's annual report of the Council of Economic Advisers is rich in insight as to the vital need to enlarge the pool of national

savings, stimulate capital formation, and recreate in this country a climate of appropriate reward for effort and innovation. Precisely the same kind of understanding of the deep-rooted nature of the economy's inflationary bias is widely evident among key Congressional leaders.

Yet, despite the policy direction indicated by this year's CEA report, the President's January messages proposed no relevant program of action. No tax incentives for saving. No tax incentives for investment. No relief for individuals or businesses from the considerable rise in effective tax rates that has come as a by-product of inflation.

One reason no basic policy change was proposed is that the kinds of action needed would entail for a time a substantial revenue loss to the Treasury. And it is understandable that officials are reluctant to give up even a small amount of revenue in view of the projection in the current fiscal year (fiscal 1980) of a $40-billion deficit ($57 billion if off-budget agencies are included).

The fact that an immobilizing deficit exists at such an advanced stage of cyclical expansion is stark testimony to the lack of expenditure control that has prevailed in this country in recent years. The size of the current-year deficit is particularly striking considering that it comes at a time when inflation is working, through the phenomenon of "bracket creep," to produce a revenue bonanza for the Treasury.

The fiscal 1980 budget—characterized by the President as "lean and austere" when first proposed a year ago—is now projected to show an expenditure rise of $70 billion, or 14%, over outlays in fiscal 1979. Significantly, the increase now projected in current-year outlays is six percentage points higher than the increase projected a year ago. A good part of that upward revision reflects unexpectedly high inflation, of course. That certainly is not easy to cope with in a budget heavily laden with "entitlement" programs whose costs in key instances (such as Social Security) escalate by law as prices rise. The point, however, is that no determined effort to cope has yet been made. The tough and unpleasant task of scaling back individual parts of the budget to achieve a responsible total has been sidestepped. Essentially, the Administration and Congress have acquiesced in the powerful inflation that has emerged.

It has been the failure of fiscal policy to play any significant anti-inflationary role that has necessitated such heavy reliance in recent months on the weaponry of the Federal Reserve. Monetary restraint, to be sure, is an essential

Interest Rates Over the Last Few Months

	Early October	*Autumn high*	*Early January*	*Early March*
Federal funds	11.91	15.61	13.94	17.00
3-month Treasury bills	10.26	12.60	11.92	14.95
Prime rate	13.50	15.75	15.25	17.25
New AA utility bonds	10.50	11.95	12.00	13.80
20-year U.S. Treasury issues	9.34	10.56	10.38	12.40
Municipal securities	6.64	7.38	7.30	8.50
Conventional mortgages	11.34	12.62	12.75	14.00

NOTE: Rates for Federal funds, 3-month Treasury bills, and 20-year U.S. Treasury issues are weekly averages. Prime rate is Morgan Guaranty's. Rates for utility bonds come from Morgan Guaranty's AA New Utility Bond Index. Rates for municipal securities come from the 20-bond index of the *Bond Buyer*. Mortgage rates are from the Federal Home Loan Bank Board's monthly data on new commitments. Early March figures, except for the prime rate, are estimates.

prerequisite to better price performance. But to leave the fight to it alone is to doom the fight to failure. Had fiscal policy been supportive of monetary restraint, it is unlikely that a quantum leap in interest rates—amounting since early autumn to more than three percentage points in some segments of the debt market (table on page 2)—would have occurred. That leap heightens cyclical uncertainties, especially in housing and housing finance. And the recent turmoil in financial markets threatens the whole capital-formation process. Inordinate reliance on monetary policy, in short, has increased significantly both the cyclical and longer-term risks for the economy.

For this situation to change materially, the problem of the surge in federal spending will have to be addressed. There can be no certainty of reasonable order in credit markets until confidence develops that the Treasury will, in time, become a less necessitous borrower. And there is a critical need to provide leeway for tax incentives that will encourage saving, investment, and effort.

The fact that Washington is now showing greatly increased concern about the budget is heartening. But skepticism that budgetary discipline actually will result is bound to remain widespread, given the lack of consensus that still exists as to what programs affecting which constituencies are to be curbed. Thus, forebodings of a resort to controls hang over the economy and inevitably distort decisions by individuals and businesses. Official assurances that controls won't become mainstays of policy simply will not be credible unless accompanied by forceful expenditure curtailment and a meaningful pledge that tax reduction will take clear precedence over program enlargement in the future.

Inflation Ratchets Up

RECENT price statistics confirm that inflation has ratcheted up once again. The 21% annual rate of increase in the producer price index in January and the 18% rate of increase in the consumer price index (CPI) far outpaced the 13% rise these indexes registered during the course of last year.

The acceleration in the producer price index was perhaps the more discouraging of the two developments. It was sharp in all categories of the index—except for food prices, which actually declined. Particularly striking were annual-rate increases of 40% for consumer goods other than food and of 20% for capital goods. The rate of price increase accelerated in all nonfood industries—with energy, chemical, and metals (gold, silver, and copper) prices rising particularly rapidly (table on page 4).

The acceleration in consumer prices came mostly from the same two areas that have been boosting the rate of increase of the index for the past year—oil and mortgage interest rates. Gasoline prices, which had increased about 2% per month on average in the last three months of 1979, jumped 7.4% in January—as retail markets began to reflect the most recent OPEC price increase. Mortgage interest rates, which have an especially large weight in the CPI, also accelerated in January—rising 3% as compared with an average of 1.7% in the previous three

next (made necessary in part by indexation of Social Security benefits) will also add heavily to labor costs. Moreover, by boosting the upper limit of the wage increase guideline to 9½%, the Administration implicitly has given its support to increases in wage rates about one percentage point higher than the average increase during the past year. If the economy continues to avoid a slippage into recession, such acceleration will be especially likely to occur.

It is this prospect of a faster tempo of increase in labor costs, and in prices generally, that has led to the sharp accentuation of inflation expectations in recent months. If wage rate increases do accelerate in 1980, the underlying inflation rate of the U.S. economy will once again ratchet higher—continuing a process that began well over a decade ago. Such a development would make it very difficult to foresee how the rate of increase in consumer prices will come back into single-digit territory—even if toward the end of the year the pace of advance in energy prices and home-ownership costs abates.

Mortgage Rates and the CPI

SHARP increases in interest rates during recent months have focused attention on the impact that changes in interest rates have on inflation as measured by the consumer price index (CPI). The fact that interest rates are directly incorporated in the CPI but not in other major price series, such as the producer price index or the GNP deflator, explains a large portion of the recent difference in the growth rates of the CPI and other price indexes. It also has led to the perverse outcome that a tightening in monetary policy aimed at controlling inflation has resulted, in the short run at least, in an acceleration in measured consumer prices.

Interest rates affect the CPI most importantly through a component that measures the cost of purchasing a house. The CPI treats a house like any other consumer good—although a house, in fact, has many of the characteristics of an investment good.

The cost of buying a house is measured in the CPI by two separate components—one that measures the cost of the house; another that measures the cost of the mortgage (table on this page). The first is measured by an index of the prevailing prices of houses—both new and existing. The cost of finance depends on two factors—the size of the mortgage and the interest rate. The size of the mortgage is assumed to change proportionally with the purchase price of houses, and the interest rate is measured by an index of the rates prevailing for newly closed mortgage loans. The product of these two series

CPI House Purchase and Finance

(Percent change at annual rate)

	79-Q1	*79-Q2*	*79-Q3*	*79-Q4*	*Jan.*
Total	17.9	21.5	21.7	29.6	28.7
House price*	11.1	14.8	17.4	18.8	11.6
Mortgage cost	27.9	31.1	27.4	44.7	52.4
House price*	11.1	14.8	17.4	18.8	11.6
Mortgage rate*	12.5	11.6	15.2	19.9	43.8

*Not seasonally adjusted.

Two Measures of Inflation

(Percent change at annual rate)

	79-Q1	*79-Q2*	*79-Q3*	*79-Q4*	*Jan.*
Consumer Price Index					
Total	11.2	12.8	13.4	13.6	18.0
House purchase and finance	17.9	21.5	21.7	29.6	28.7
Energy	19.8	47.5	56.4	25.7	72.0
All other	8.7	7.2	6.6	8.5	9.3
Personal Consumption Deflator					
Total	10.8	9.2	9.8	9.8	
Housing	6.3	6.4	9.8	11.7	
Energy	18.9	51.1	60.3	22.8	
All other	10.5	7.0	5.4	8.4	

is the mortgage-cost component of the index.

Significantly, changing mortgage costs enter the CPI with a considerable time lag—for several reasons. First, the CPI for any particular month reflects the prevailing rates on mortgage loans closed during the first week of the previous month. In addition, in most cases, a mortgage rate is set at the time a mortgage commitment is made and there is typically a lag between that time and the time a loan is closed. The consequence of these lags is that movements in the CPI mortgage-rate component can run behind changes in mortgage market conditions by as much as three or four months. This explains why the rate of increase of the mortgage-rate component accelerated sharply in January: it reflected the jump in mortgage rates that followed the tightening in Federal Reserve policy in early October. Similarly, because of these lags, the impact of the suspension by Congress of state usury ceilings effective January 1 will not be reflected in the CPI until February and March.

Changes in house prices enter the CPI with an even longer lag, partly because there are delays in processing the raw data and partly because the highly erratic monthly data are averaged over a three-month period. A six-month lag can easily occur before changes in house prices affect the CPI. Signs of deceleration in the rate of increase of house prices evident in the January CPI actually reflected a weakening in housing markets that began in late summer of last year. But any new weakening in house prices that may result from the most recent boost in mortgage rates will not show up in the CPI until summer.

The large impact that rising mortgage rates have had on the CPI during the past year is highlighted by a comparison of the CPI and the personal consumption deflator of the national income accounts (table above). The personal consumption deflator is similar to the CPI in that it measures prices paid by consumers. But, significantly, its basic measure of housing cost for both rental housing and owner-occupied dwellings is an index of rents. Thus, it is not affected directly by changes in mortgage rates.

As the table above indicates, prices of goods and services other than housing have increased at about the same rate whether measured by the CPI or the personal consumption deflator. Housing prices, however, increased more than 20% during 1979 as measured by the CPI, but they rose less than 10% as measured by the personal consumption deflator. In addition, the CPI measure accelerated sharply during the course of the year, as mortgage rates surged, while the rent-based deflator measure showed a relatively stable performance during the year. The different treatment of housing costs in the two indexes is the primary reason for their very different rates of increase during the past year.

The Fed's New M's: An Appraisal

THE Federal Reserve's presentation last month of a set of new definitions of "money" represents the culmination of years of debate both within and outside the Fed over whether and how to replace the old measures of money (commonly referred to as M_1, M_2, M_3, . . .). The decision to adopt new measures is potentially of great importance for the conduct of monetary policy, since in recent years the Fed has increasingly cast its policy in terms of the achievement of targeted growth rates for the various monetary aggregates. And last October 6, the Fed instituted a major change in its day-to-day operations which was specifically designed to improve its ability to keep money growth on target. A definitive judgment as to whether the new definitions provide better guides to policy will have to await the test of time. Tentatively, however, there are grounds for saying that they are better, but not by much. Fortunately, the Fed seems to be aware of their limitations and has made clear that the process of redefining money is likely to be a continuing one.

Indeed, the process of conceptualizing what money is really began when someone first realized that commerce could be conducted more efficiently by introducing a common medium of exchange to replace the barter system. In the millennia since then, the underlying concept of money has remained the same: a generally accepted medium of exchange to facilitate transactions. However, the list of specific assets identified as money has changed as innovations in the payments system have occurred–e.g., the minting of coins, the printing of paper currency, and the development of checks. Moreover, a variety of close substitutes for money have evolved, such as savings accounts and certificates of deposit. While these "near-monies" generally cannot be used directly as means of payment (although drafts written against some savings accounts have acquired this ability), they can be quickly and easily converted into money. Therefore, they cannot be ignored by policymakers concerned with the size of the nation's money supply.

Policymakers have had such a concern at least since the 18th century, when David Hume argued that excessive growth in the money supply leads to inflation and too little growth to deflation. Contemporary economists would express Hume's argument in terms of the demand for and the supply of money. The demand for money–the amount of money which individuals and businesses want to hold–is assumed to be closely determined by both the amount of purchases the public intends to make and the level of interest rates, which represents the cost of holding cash or checking deposits. The supply of money, which today is determined by a more complex process than in Hume's time, is still ultimately under the control of the monetary authorities. If those authorities supply more money to the public than is demanded, it is reasoned, people will attempt to get rid of the excess by spending or investing more than they had planned. If the economy is at or close to full employment, the additional spending can only lead to inflation. For an economy to avoid destabilizing swings between inflation and deflation, according to this argument, some appropriate rate of money growth must be maintained.

During the Great Depression and for a considerable part of the postwar period, to be sure, the interest of policymakers in monetary policy waned. Fiscal policy–reflecting the triumph of

Keynesianism—came to be viewed as the principal means for achieving the desired economic goals of full employment and reasonably stable prices. Monetary policy was regarded as playing a subordinate role in attempts to attain these goals. Moreover, the indicator generally used to gauge monetary policy was the level of interest rates, not the rate of money growth.

Disenchantment with fiscal policy became widespread, however, with the failure of efforts to "fine tune" the economy in the 1960s. In their subsequent quest for a means of dealing with accelerating inflation, economists began to pay more attention to the modern interpreters of Hume's doctrines. In the decade since then, the content of scholarly journals has tilted increasingly toward articles debating such issues as whether money affects only the inflation rate in the long run or the real output of goods and services as well, and how long it takes before money's impact is felt. While differences abound, virtually unanimous agreement has evolved among economists that money not only "matters," but matters a great deal.

The Fed reflected this shift of opinion by giving greater emphasis in the formulation of policy to its basic measure of the means of payment (M_1, consisting of currency and demand deposits) and to a variety of measures of near-money such as M_2 and M_3. (See table above for the specific items included in these measures.) In fact, the Fed is now required under the Full Employment and Balanced Growth Act of 1978—the so-called Humphrey-Hawkins Act—to establish annual growth targets for the various monetary aggregates which it believes will be consistent with the eventual achievement of full employment and a low rate of inflation.

But at the same time that the money supply was gaining prominence as the focal point of Fed policy, the pace of innovation in the financial system was accelerating. The introduction of new types of transactions accounts not included in the old M_1, which effectively permitted the payment of interest on checking balances, along with the rapid growth of several near-monies not included in the broader M's, raised doubts as to whether the old aggregates were accurately reflecting the effective amount of money in the economy. Stated differently, there were questions whether the historic relationships among the Fed's measures of money, economic activity, and interest rates had broken down.

Signs of such a breakdown appeared dramatically in the early stages of the recovery

Old Definitions of Money

(Billions of dollars, not seasonally adjusted)

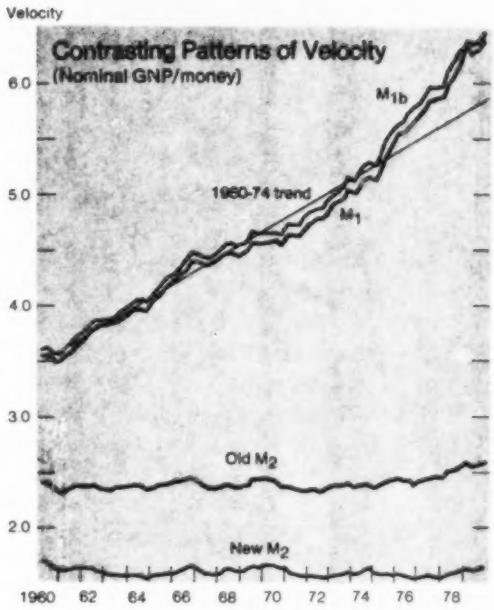
	December 1979
M_1:	
Currency in the hands of the nonbank public	108.1
Demand deposits at commercial banks	284.6
	392.7
M_2:	
M_1	392.7
Savings deposits at commercial banks	205.4
Time deposits at commercial banks other than large negotiable certificates of deposit (CDs)	360.2
	958.3
M_3:	
M_2	958.3
Deposits at thrift institutions	667.6
	1,625.9
M_4:	
M_2	958.3
Large negotiable CDs	97.1
	1,055.4
M_5:	
M_3	1,625.9
Large negotiable CDs	97.1
	1,723.0

from the 1974-75 recession. M_1 growth of 4.6% in 1975 and of 5.8% in 1976 was accompanied by considerably greater growth in nominal income than would have been anticipated on the basis of the historical relationship between M_1 and nominal GNP. Before it became apparent that income was in fact expanding strongly, fear developed that money was growing too slowly to sustain the recovery. That fear gradually waned, however, as analysts came to appreciate that a fairly radical transformation was occurring in the efficiency with which people were using money. Each dollar of money balances was in effect supporting a markedly larger volume of transactions than formerly. In other words, what economists call the velocity of money—calculated in the case of M_1 by dividing nominal GNP by the total amount of currency and demand deposits—rose significantly faster in 1975 and 1976 than its trend rate of increase over many previous years (chart on this page).

The growth of the more broadly defined measure, M_2, did not show a simultaneous slowing relative to GNP. In time, however—roughly from early 1978—M_2 also began to grow considerably less rapidly than the historic linkage between nominal GNP and M_2 would have suggested. Efficiency in usage of M_2, that is, also has increased.

Why the spurt in velocity?

There are at least two possible explanations why individuals and businesses came to need less money (as officially defined) and near-money relative to income and transactions than before. First, it is possible that with the passage of time and with change in the nation's payments system the Fed's measures of money gradually became poorer proxies for what in



fact serves as money and near-money. With respect to the narrow measure of money used by the Fed for decades (M_1), this deterioration might have occurred because the measure excluded new types of transactions accounts at banks and thrift institutions. Similarly, the broader measures used by the Fed failed to incorporate all the new close substitutes for money that evolved over time. According to this explanation, the ability of people to get by with less money relative to income than formerly at least partly reflected a failure by the Federal Reserve to keep its money definitions aligned with the changing collection of things people were actually using as money.

An alternative explanation (at least for the dramatically lessened growth of M_1) is that the basic relationship between money and economic activity did change radically in the 1975-76 period. According to this view, a number of regulatory and market developments—most im-

portantly, the extremely high interest rates of 1973-74—sensitized both individuals and firms to the rewards of careful cash management. The resultant minimization of cash balances (and thus the slowing of M_1 growth) caused M_1 velocity to increase sharply relative to its trend rate of growth.

Research by the Fed's staff gradually produced a conviction within the System that the Fed's money measures had slowed in growth relative to economic activity both because official definitions were too narrow and because there had indeed occurred a fairly radical shift in the linkage between money and income. The Fed thus reached the conclusion that new definitions of money were needed. But it approached the task of redefinition with full awareness that—in light of the recent pattern of change in the relationship between money and income—the new measures would not be reliable guides to policy for all times.

The new framework

The practical problem confronting the Fed was what groupings to form from the long list of assets having at least some degree of moneyness. The goal was to create a number of new aggregates, beginning with a measure of those assets that correspond to the strictest definition of medium of exchange and extending to ever broader measures of money and near-money. Each successively broader measure was to incorporate assets less liquid than those included in the group preceding it. Assets which serve similar functions—and which therefore are presumably close substitutes in the eyes of the public—were to be grouped together irrespective of the institutions at which they were held. By contrast, the Fed's old aggregates had been constructed along institutional lines, a reasonably satisfactory approach before whirlwind regulatory and legislative changes blurred distinctions between various kinds of financial institutions. The resulting set of new definitions of money appears in the table on page 11.

In attempting to assess the new definitions, it is natural to begin by asking how close they come to meeting the goals described above. Was the principle of grouping together assets which serve similar functions adhered to? Do the dividing lines between the measures—which must be somewhat arbitrary—seem reasonable in terms of the principle of ordering assets by decreasing degrees of moneyness? Have any major assets which can legitimately be called near-monies been left out of the new measures altogether? In order to answer these questions, it is necessary to look at the new aggregates one by one.

The narrowest of the new measures, M_{1A}, begins with currency in the hands of the public and demand deposits at commercial banks (i.e., the items which comprised the old M_1). As in the past, the Fed has adjusted the total to remove that portion owned by the U.S. government, the Federal Reserve, and domestic commercial banks (vault cash and interbank deposits). The logic behind that adjustment is that the excluded portion of currency and demand deposits is not likely to be as closely related to current expenditures as are the balances held by the nonbank public. In the new definition, one additional adjustment made to this subtotal is to net out the demand deposits of foreign commercial banks and official institutions. This change stems from a recommendation made in 1976 by the Advisory Committee on Monetary Statistics (the "Bach Committee"). The rationale is the same as that for removing domestic interbank and federal government deposits.

While the Fed will publish weekly data on

M_{1a}, conceptually it is the broader M_{1b} which comes closer to the traditional notion of the medium of exchange. This aggregate, which will also be available weekly, begins with M_{1a} and then adds various new kinds of interest-earning deposits against which checks can be written. These include the negotiable-order-of-withdrawal (NOW) accounts at banks and thrift institutions, share-draft balances at credit unions, and those bank accounts which provide for the automatic transfer of funds from savings to checking. Altogether, these innovative deposits total more than $16 billion at present. However, that figure probably overstates the addition they represent to balances held for the purpose of current transactions, since some portion of the total presumably reflects hard-core savings deposits.

Since M_{1b} is really the new measure of money in the narrow sense, the decision to publish figures for the subtotal of M_{1a} at first seems superfluous. The reason for its inclusion in the new aggregates is a pragmatic one. There are a number of pending regulatory and legislative issues which might distort both measures in offsetting ways. For example, if NOW accounts, which currently are limited to New England and New York State, are authorized nationwide, M_{1b} might temporarily overstate the rate of growth in transactions balances during the transition period, as some savings balances are shifted to NOW accounts. By contrast, M_{1a} might grow unusually slowly in a transition to nationwide NOW accounts, since traditional demand deposits would appear unattractive relative to interest-bearing checking balances. The availability of both series could help in sorting out transitional disturbances.

Once the Fed had defined M_{1b} as its new measure of money in the narrow sense of transactions balances, it then had to decide what

New Definitions of Money

(Billions of dollars, not seasonally adjusted)

	December 1979
M_{1a}:	
Currency in the hands of the nonbank public	108.1
Demand deposits at commercial banks less those due foreign banks and official institutions	273.0
	381.1
M_{1b}:	
M_{1a}	381.1
Other checkable deposits	16.2
	397.3
M_2:	
M_{1b}	397.3
Savings deposits at all depositary institutions	415.0
Small time deposits at all depositary institutions	648.7
Overnight RPs issued by commercial banks	20.6
Money market mutual fund shares	43.6
Overnight Eurodollar deposits of U.S. nonbank residents at Caribbean branches of U.S. banks	3.5
Consolidation component (to avoid double counting of components)	−2.7
	1,526.0
M_3:	
M_2	1,526.0
Large time deposits at all depositary institutions	222.6
Term RPs issued by commercial banks	22.2
Term RPs issued by savings and loan associations	8.0
	1,778.8
L:	
M_3	1,778.8
Other Eurodollar deposits of nonbank U.S. residents	30.9
Bankers acceptances	26.6
Commercial paper	97.2
Savings bonds	80.0
Liquid Treasury obligations (remaining maturities of 18 months and less)	127.2
	2,140.7